

REMARKS

This is in full and timely response the Office Action dated February 23, 2007. Applicant respectfully request reconsideration of the present application in view of the following remarks.

Claims 1-3, 5-8, 11-15 are currently pending, with claims 1 and 2 being independent.

Claims 1, 2, 12, 13 and 15 are amended. Claim 4 is canceled but the claim features of claim 4 are added to claims 1 and 2. Claims 12 and 13 are amended to correct minor errors. No new matters have been added.

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the amendment: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issues requiring further search and/or consideration; (c) satisfies a requirement of form asserted in the previous Office Action; and (d) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of this amendment is respectfully requested. Reexamination and reconsideration in light of the above amendments and the following remarks are respectfully requested.

Claim Rejections – 35 USC §§ 101 and 112

Claims 9 and 10 are rejected under 35 USC §§ 101 and 112. These rejections are respectfully traversed.

Claims 9 and 10 are canceled. By the amendment attached hereto, the rejection is now moot. Therefore, withdrawal of the rejection and allowance of the claims is respectfully requested.

Claim Rejections – 35 USC § 102

Claims 1, 2, 7-10 and 14 are rejected under 35 USC § 102 as being anticipated by *Wright et al.* (U.S. Patent No. 6,109,107). This rejection is respectfully traversed.

It is respectfully submitted that the Examiner's Response to Arguments is confused a target sound to a mask sound. A target sound and a mask sound are different. These are not always replaceable to each other. Especially, in this invention, the Noise-Vocoded **Speech**

Sound must have some meaning, such as a word or sentence, since it literally includes the word “speech” as discussed below.

Wright discloses several patterns of target sound stimuli and mask sound stimuli. These of many test patterns comprising different combinations of target and mask sound stimuli are used to assess backward masking effects and spectral interference effects in an individual under test (col. 3 lines 29-48). The target sound stimulus may be a consonant, a tone, a tonal complex, noise, amplitude modulated noise or a frequency sweep (Col. 3, lines 34-37); and the mask sound stimulus may be noise with a prescribed spectral content, a tone, a vowel, a word, a word fragment, a sentence, a sentence fragment the sound of many voices in a crowd, a tone, a vowel, a word, a word fragment, a sentence, a sentence fragment the sound of many voices in a crowd, a tone, a tonal complex, noise, amplitude modulated noise or a frequency seep (Col. 3, lines 39-44). However, *Wright* does not disclose that a target sound stimulus could be a word or sentence, in contrast *Wright* discloses that a mask sound stimulus could be a word or sentence.

In contrast, the target sound of the current invention is “a Noise-Vocoded Speech Sound signal that is obtained by dividing at least one portion of a sound signal into a frequency band signal and subjecting the frequency band signal to noise” as recited in claims 1 and 2. The Noise-Vocoded Speech Sound, corresponding to a target sound in Wright, is a word or a sentence as it is described in the Specification (page 6, lines 4-17) as follows:

*When a patient was let to hear the Noise-Vocoded Speech Sound that is generated in this manner and recognized **words or sentences** are examined, then it was found that there are characteristics in the recognition results, depending on the disease of the patient. There are differences in the recognition results between disorders such as cerebral infarction, cerebral hemorrhage, presbycusis, congenital deafness, hearing impairment with independent of the neural disorder. It is estimated that a neural function or a neural site used **when hearing and recognizing a sound signal that has been converted to a Noise-Vocoded Speech Sound is different from when hearing and recognizing an ordinary speech sound, so that the recognition results are unique to each disease.** By combining the present invention with MR images or the like as necessary, this phenomenon is utilized for highly accurate diagnosis. (Emphasis added.)*

Wright does not teach or suggest such Noise-Vocoded Speech Sound (target sound) that is a word or a sentence.

Further, *Wright* does not disclose a step of multiplying the amplitude envelope of each frequency signal by the frequency band noise signal in a multiplying procedure as recited in claims 1 and 2.

Therefore, it is respectfully submitted that the rejection is improper because the applied art fails to teach each and every element of claims 1 and 2 as discussed above. Thus, it is respectfully submitted that claims 1 and 2 are allowable over the applied art. **Withdrawal of the rejection is respectfully requested.**

Further, claims 7, 8, and 14 are dependent from claim 1, and claims 9 and 10 recite same claim elements in claim 1. It is respectfully submitted that they are allowable for at least the reasons that claim 1 is allowable respectively stated above, and they are further allowable by reason of the limitations set forth therein.

Alternatively, claims 1-2 and 8-10 are rejected under 35 USC § 102 as being anticipated by Sturner et al. (U.S. Patent No. 5,303,327). This rejection is respectfully traversed.

Sturner discloses a verbal auditory stimulus to the subject (col. 3 lines 52-54). However, this is also not a Noise Vcoded Speech Sound signal that is obtained by dividing at least one portion of a sound signal into a frequency band signal and subjecting the frequency band signal to noise” as recited in claims 1 and 2.

It is respectfully submitted that the rejection is likewise improper because the applied art fails to teach each and every element of claims 1 and 2 as discussed above. Thus, it is respectfully submitted that claims 1 and 2 are allowable over the applied art. **Withdrawal of the rejection is respectfully requested.**

Claims 9 and 10 are canceled. By this cancellation, the rejection is now moot. Therefore, withdrawal of the rejection and allowance of the claims is respectfully requested.

Claim 8 is dependent from claim 1, and claim 14 is dependent from claim 2. It is respectfully submitted that they are allowable for at least the reasons that claims 1 and 2 are allowable respectively stated above, and they are further allowable by reason of the limitations set forth therein.

Claim Rejections – 35 USC § 103

Claims 3, 5, 6 and 11 are rejected under 35 USC § 103 as being unpatentable over Wright (U.S. Patent No. 6,109,107) in view of Sturner (U.S. Pat. 5,303,327). This rejection is respectfully traversed.

Claims 3, 5, and 6 are dependent from claim 1. It is respectfully submitted that they are allowable for at least the reasons that claim 1 is allowable respectively stated above, and they are further allowable by reason of the limitations set forth therein.

Claims 4 and 5 are rejected under 35 USC § 103 as being unpatentable over Wright (U.S. Patent No. 6,109,107) in view of Applicant's admitted prior art. This rejection is respectfully traversed.

Claim 4 is canceled and claim features of claim 4 are added to claims 1 and 2. The rejection is now moot. Therefore, withdrawal of the rejection and allowance of the claims is respectfully requested.

Claims 12 and 13 are rejected under 35 USC § 103 as being unpatentable over *Sturner* (U.S. Patent No. 5,303,327) in view of Applicant's admitted prior art. This rejection is respectfully traversed.

Claims 12 and 13 are indirectly dependent from claim 1 or 2. It is respectfully submitted that they are allowable for at least the reasons that claim 1 or 2 is allowable respectively stated above, and they are further allowable by reason of the additional limitations set forth therein.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

If the Examiner has any suggestions for placing this application in even better form, the Examiner is invited to telephone the undersigned at the number listed below.

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Respectfully submitted,

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